INDEX

SOVIET RADIOCHEMISTRY

Volume 5, Numbers 1-6, 1963

SOVIET RADIOCHEMISTRY

Volume 5, Numbers 1-6, 1963

(A translation of Radiokhimiya)

A

Afanas'ev, Yu. A. - 483
Amar Nath - 108, 692
Ampelogova, N. I. - 274, 520, 581
Andreev, P. F. - 89
Andreeva, I. V. - 89
Antonov, N. G. - 570
Antonov, P. G. - 310
Apraksin, I. A. - 40
Arslanov, Kh. A. - 174
Atrashenok, L. Ya. - 140, 149
Atrashenok, P. V. - 140
Avdonina, E. N. - 475, 589
Avdzeiko, G. V. - 140

B

Bagretsov, V. F. - 26, 577
Bedina, O. L. - 122
Belov, I. M. - 362
Biryuk, E. A. - 457
Blokhina, V. K. - 67
Bobrova, V. N. - 1, 6
Bogatyrev, I. O. - 596
Brandshtetr, I. - 655, 660, 667, 676
Bryukher, É. - 123
Burovina, I. V. - 243

C

Chaikin, P. I. - 367
Ch'ai Tein-Ying - 598
Chao T'ao-Nan - 620
Chechev, V. P. - 362
Chiang T'ai-wang - 476
Chikisheva, L. A. - 265
Chizhov, A. V. - 52
Chuburkov, Yu. T. - 673

D

Dakar, G. M. - 395, 451
Datyuk, Yu. V. - 699
Degtyarev, A. Ya. - 60
Dement'ev, V. S. - 144
Dobrosel'skaya, N. P. - 359
Dudnikova, K. T. - 644
D'yachkova, R. A. - 91
Dzantiev, B. G. - 364
Dzhelepov, B. S. - 362

E

Egorov, Yu. V. - 181, 187, 577
Egorova, A. A. - 240
Éirish, M. V. - 144
Elizarova, A. N. - 133
Ermakov, V. A. - 667, 676
Ershova, Z. V. - 441

F

Fedulova, A. A. - 705
Filatov, É. S. - 346, 476
Filippov, A. P. - 558, 702
Filippov, E. A. - 391
Filippov, V. K. - 435
Firsova, L. D. - 682
Fleishman, D. G. - 243

G

Gaivoronskii, V. I. - 216
Galitskaya, I. A. - 76
Gélétseanu, I. - 220, 298
Gerling, É. K. - 249
Golovatenko, R. T. - 460
Golubev, N. V. - 367
Gorshkov, V. V. - 80
Gorshtein, G. I. - 8
Gorskii, N. I. - 651
Grashchenko, S. M. - 136
Grebenshchikova, V. I. - 1, 6
Grigorovich, Z. I. - 647
Grinberg, A. A. - 289
Guseva, A. N. - 467
Gurevich, A. M. - 548
Gvozdev, B. A. - 673

I

Il'menkova, L. I. - 209, 640
Iofa, B. Z. - 395, 451
Ioffe, É. M. - 116
Ionov, V. P. - 516
Ishina, V. A. - 584, 587
Ivanchenko, A. F. - 584, 587
Ivanov, R. B. - 362
Ivanova, L. M. - 160, 163

K

Kalicheva, I. S. - 682
Kalyamin, A. V. - 711
Kanevskii, E. A. - 558, 702
Kapatsinskaya, L. A. - 144, 323
Kazantsev, E. I. - 205
Kereichuk, A. S. - 52, 427
Khalkin, V. A. - 191, 318, 620
Kirin, I. S. - 587
Klener, I. R. - 174
Klokman, V. R. - 255, 371, 487, 609
Knoblokh, V. - 676
Kochetkova, N. E. - 303
Kolesnikov, N. S. - 255
Kol'tsova, T. V. - 249
Korobkov, V. I. - 601
Korovin, S. S. - 40
Kotegov, K. V. - 337, 342
Kovaleva, T. V. - 573
Kozyreva, L. S. - 34
Krasil'nikov, V. A. - 281
Krasnov, K. S. - 197
Krestov, G. A. - 229
Krivokhatskii, A. S. - 362
Krupennikova, A. Yu. - 615
Krylov, A. Ya. - 140, 149, 151
Krylov, E. I. - 181, 577
Krzhivanek, M. - 655, 660, 667, 676
Kudusov, V. A. - 205
Kuzin, I. A. - 76
Kuzina, M. G. - 628
Kuznetsov, B. S. - 274
Kuznetsov, V. I. - 80
Kuznetsov, Yu. V. - 133, 167

L

Ladygin, I. N. - 696
Lapitskii, A. V. - 98, 220, 261, 298, 451
Laskorin, B. N. - 391

Lavrukhina, A. K. - 682, 692
Lebedev, V. M. - 26
Legin, V. K. - 167
Levin, V. I. - 30, 34, 465
Lipovskii, A. A. 120, 542, 628
Lovtsyus, A. V. - 136, 140
Lyapina, A. M. - 359

M

Makoveev, E. A. - 604
Maly, Ya. - 655, 660, 667, 676
Malyshev, V. V. - 682
Mar'yanov, B. M. - 314
Marygina, A. B. - 30
Mashirov, L. G. - 67
Melikhov, L. L. - 328
Meshcherova, I. V. - 30
Mikheev, N. B. - 18
Mink, Ya. - 220
Mironov, V. E. - 102
Moskvin, L. N. - 269, 708
Mudra, K. - 589
Mudrova-Yablonitska, V. - 478
Mukashev, F. A. - 144, 323
Myakishev, K. G. - 371, 487, 609

N

Naumova, I. I. - 594
Nazarenko, V. A. - 457
Nedovesov, V. G. - 362
Nefedov, V. D. - 604
Negina, V. R. - 240
Nemodruk, A. A. - 191, 303
Nesmeyanov, An. N. - 108, 346, 364, 395, 475, 476, 478, 589
Nesterov, V. P. - 243
Nikitina, G. P. - 402, 410, 419
Nikitina, S. A. - 120, 542
Nikolaev, V. M. - 26, 577
Nikol'skii, V. D. - 122, 705
Nittsol'd, D. - 596, 601
Norseev, Yu. V. - 318, 620
Nosova, N. F. - 60, 435

O

Oreshko, V. F. - 356
Osipov, O. A. - 216

P

Pakholkov, V. S. - 49
Palei, P. N. - 191, 303
Pankratova, L. N. - 98, 481
Paramonova, V. I. - 52, 427, 563
Parnov, E. I. - 467
Petrzhak, G. I. - 289
Pettsol'd, V. - 18
Polozhenskaya, L. P. - 548
Poluéktova, E. N. - 457
Potapova, S. A. - 94
Pozdeev, V. V. - 364
Pozharskaya, M. E. - 122
Preobrazhenskii, B. K. - 269
Prokhorov, V. M. - 598
Pushlenkov, M. F. - 402, 410, 419, 496, 503, 509, 634

R

Revina, L. D. - 682
Reznik, A. M. - 40
Rogozina, É. M. - 89
Romanov, G. A. - 119, 472, 532, 538, 624
Rozen, A. M. - 40
Rozman, I. M. - 604
Rudenko, N. P. - 261
Ryabinin, A. I. - 483
Ryazanov, I. A. - 573
Ryukhin, Yu. A. - 604
Rzhanitsyna, L. N. - 269

S

Samoilov, O. Ya. - 460, 644, 647
Sarvetnikov, O. E. - 30
Satarova, L. M. - 682
Savich, I. A. - 98
Savoskina, G. P. - 634
Sedletskii, R. V. - 592
Serebrennikov, V. V. - 314
Shagidullin, R. R. - 216
Shcherbakov, V. A. - 119, 472, 532, 538
Sheka, Z. A. - 446
Shibaev, V. A. - 592
Shilin, A. I. - 391
Shuvalov, O. N. - 496, 503, 509
Shvedov, V. P. - 160, 163, 310, 337, 342, 570, 651
Skorovarov, D. I. - 391
Simonyak, Z. N. - 167
Sinyavskaya, É. I. - 446
Smelov, V. S. - 470
Sobotovich, É. V. - 136
Sokolov, A. P. - 83
Solntseva, L. V. - 563
Spitsyn, Vikt. I. - 91, 359
Starik, I. E. - 133, 174, 209, 640
Stepanov, A. V. - 651
Strakhova, A. V. - 470
Stroganov, E. V. - 83
Suglobov, D. N. - 67, 281, 696, 699
Suglobova, I. G. - 67, 696, 699
Su Hung-keui - 660, 667, 676, 682
Sviridova, R. A. - 386
Syromyatnikov, N. G. - 144, 323

T

Taushkanov, V. P. - 76
Tétner, R. - 328
Tikhomirov, V. I. - 516
Tot, G. - 379
Tsitsishvili, G. V. - 615
Tyutyueva, N. N. - 8

U

Ul'yanov, V. S. - 386

V

Vdovenko, V. M. - 67, 83, 119, 281, 472, 532, 538, 542, 573, 624, 696, 699
Vel'matkin, M. I. - 702
Verdnikov, A. I. - 356
Vinogradov, E. E. - 117
Vladimirova, M. V. - 441
Vlasov, L. G. - 481
Volkov, V. V. - 667

W

Wang Fu-Chün - 318, 620
Wang T'ung-seng - 676

Y

Yakimov, M. A. - 60, 435
Yashkichev, V. I. - 117, 460
Yui Tsyan'-Tsi - 60

Z

Zaborenko, K. B. - 328, 596, 601
Zamyatina, V. N. - 240, 265
Zastenker, E. E. - 122
Zemlyanova, L. I. - 359
Zemlyanukhin, V. I. - 634
Zharikov, V. I. - 160
Zimakov, I. E. - 359
Ziv, D. M. - 584, 587
Ziv, V. S. - 584
Zvara, I. - 676
Zvarova, T. S. - 655, 667, 676

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of **RADIOKHIMIYA**

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 5, Number 1 **January-February, 1963**

CONTENTS

	PAGE ENG.	PAGE RUSS.
The Effect of the Composition of a Complex Ion on the Crystallization Coefficient – V. I. Grebenshchikova and V. N. Bobrova	1	3
Coprecipitation of Plutonium with Potassium Sulfate – V. I. Grebenshchikova and V. N. Bobrova	6	9
Fractionation of Traces of Trivalent Iron During the Crystallization of Ammonium Sulfate from Aqueous Solutions – G. I. Gorshtein and N. N. Tyutyueva	8	11
Distribution of Radioactive Cesium Between the Crystalline Phase of Aluminum Potassium Alum and the Solution – N. B. Mikheev and V. Pettsol'd	18	22
Adsorption of Pu (VI) on Polished Platinum – A. G. Samartseva	23	28
Sorption of Microamounts of Strontium and Cesium by Vermiculite – V. M. Nikolaev, V. F. Bagretsov, and V. M. Lebedev	26	32
Extraction Method of Isolating Carrier-Free Calcium-45 from Scandium Irradiated with Fast Neutrons – V. I. Levin, I. V. Meshcherova, A. B. Marygina, and O. E. Sarvetnikov	30	37
Extraction of Tracer Concentrations of Hydrofluoric Acid with Tributyl Phosphate. Isolation of Carrier-Free Fluorine-18 from Neutron-Irradiated Lithium Salt – V. I. Levin and L. S. Kozyreva	34	41
Extraction of Zirconium and Hafnium by n-Tributyl Phosphate from Solutions Containing Nitric and Hydrochloric Acids – A. M. Reznik, A. M. Rozen, S. S. Korovin, and I. A. Apraksin	40	49
Sorption of Uranium (VI) from Solutions Containing Hydrofluoric Acid by the Strongly Acid Cationite KU-2 – V. S. Pakholkov	49	59
Use of Ion Exchange to Study the State of a Substance in Solution. IX. Study of Complex Formation of Europium with Some Dibasic Acids – V. I. Paramonova, A. S. Kereichuk, and A. V. Chizhov	52	63
Interaction of Components in Systems of the Type $MeNO_3$-$UO_2(NO_3)_2$-H_2O – M. A. Yakimov, N. F. Nosova, A. Ya. Degtyarev, and Yui Tsyan'-Tsi	60	73
Mutual Solubility in the Systems Uranyl Perchlorate – Water – Diethyl Ether and Uranyl Perchlorate – Water – Di-n-Butyl Ether at 25° – V. M. Vdovenko, L. G. Mashirov, V. K. Blokhina, I. G. Suglobova, and D. N. Suglobov	67	80
Precipitation of Ammonium Uranyl Disulfate from Nitrate Solutions – I. A. Kuzin, I. A. Galitskaya, and V. P. Taushkanov	76	89

(continued)

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Organic Coprecipitants. XVII. Coprecipitation of Uranium as the 8-Hydroxyquinolinate with Indifferent Coprecipitants—V. I. Kuznetsov and V. V. Gorshkov	80	93
Structure of Uranyl Nitrate Trihydrate—V. M. Vdovenko, E. V. Stroganov, and A. P. Sokolov	83	97
Processes and Products of the Interaction of High-Molecular Compounds with Inorganic Salts. II. Formation of Complexes of Poly(α-Methyl)Acrolein with Uranyl Nitrate—I. V. Andreeva, P. F. Andreev, and É. M. Rogozina	89	103
Concentration of Protactinium in Materials with a High Content of Silicic Acid—R. A. D'yachkova and Vikt. I. Spitsyn	91	106
Isolation of Carrier-Free Y^{90} From $Sr^{90}+Y^{90}$ Mixture by Extraction with Diarylphosphoric Acids—S. A. Potapova	94	110
Complex Formation of the Uranyl Ion with Some Schiff's Bases—L. N. Pankratova, I. A. Savich, and A. V. Lapitskii	98	114
Radiochemical Study of the Solubility of Silver Halides and Their Analogy to Monovalent Thallium Halides—V. E. Mironov	102	118
Recoil Effect of Co^{58} After a (γ, n) Reaction in Complex Compounds of Cobalt—Amar Nath and An. N. Nesmeyanov	108	125
BRIEF COMMUNICATIONS		
Distribution of Microcomponents Between the Solid and Liquid Phases in the Systems $NH_4Br-CuBr_2-H_2O$ and $NH_4Cl-CdCl_2-H_2O$ in the Presence of Hydrogen Ions—É. M. Ioffe	116	135
Relation of the Distribution Coefficient to the Heat of Extraction—V. I. Yashkichev and E. E. Vinogradov	117	136
Hydrolysis of the Ion $U^{(IV)}$—V. M. Vdovenko, G. A. Romanov, and V. A. Shcherbakov	119	137
Solvation of Uranyl Chloride by Tri-n-Butyl Phosphate Molecules—V. M. Vdovenko, A. A. Lipovskii, and S. A. Nikitina	120	139
Oxidation of Plutonium Dioxide by Atmospheric Oxygen—E. E. Zastenker, O. L. Bedina, V. D. Nikol'skii, and M. E. Pozharskaya	122	141
Preparation of Carrier-Free Ac^{228} ($MsTh_2$) and Ra^{228} ($MsTh_1$) by Ion Exchange—É. Bryukher	123	142
Obituary. Ésfir' Moiseevna Ioffe	125	144

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of **RADIOKHIMIYA**

a publication of the Academy of Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 5, Number 2 March-April, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
Vladimir Ivanovich Vernadskii (On the Centennial of His Birthday)	129	149
Determination of the Age of Oceanic Sediments by the Ionium-Protactinium Method—I. E. Starik, A. N. Elizarova, and Yu. V. Kuznetsov	133	154
Isotopic Composition of Lead from the Oldest Rocks—É. V. Sobotovich, S. M. Grashchenko, and A. V. Lovtsyus	136	157
Isotopic Composition of Leads of Northern Tyan'-Shan—L. Ya. Atrashenok, P. V. Atrashenok, G. V. Avdzeiko, A. Ya. Krylov, and A. V. Lovtsyus	140	160
Determination of the Isotopic Composition of Thorium in Natural Formations—N. G. Syromyatnikov, M. V. Éirish, F. A. Mukashev, L. A. Kapatsinskaya, and V. S. Dement'ev	144	164
Radioactive Equilibrium in Rocks of Eastern Antarctica—L. Ya. Atrashenok and A. Ya. Krylov	149	170
Evolution of Radioactivity and General Chemical Composition of Rocks of the Northern Zone of Tyan'-Shan—A. Ya. Krylov	151	173
Isolation of Radioactive Cesium from Sea Water. I. Isolation of Cesium as Compounds with Zinc, Copper, and Nickel Ferrocyanides—V. P. Shvedov, L. M. Ivanova, and V. I. Zharikov	160	182
Isolation of Radioactive Cesium from Sea Water. II. Isolation of Cesium as Compounds with Alkaline Earth Ferrocyanides—L. M. Ivanova and V. P. Shvedov	163	185
Determination of Trace Amounts of Uranium, Radium, and Thorium Isotopes in Silicate Materials on One Sample—Yu. V. Kuznetsov, V. K. Legin, and Z. N. Simonyak	167	189
Improved Procedure for Chemical Preparation of Samples for Radiocarbon Dating by the Scintillation Method—I. E. Starik, Kh. A. Arslanov, and I. R. Klener	174	198
Effect of the Mass of the Collector (Hydrated Oxide) on the Sorption of Microamounts of Some Radioactive Isotopes—Yu. V. Egorov and E. I. Krylov	181	205
Some Characteristics of the Sorption of Strontium-90 by Active Manganese Dioxide—Yu. V. Egorov and E. I. Krylov	187	211
Extraction of Tetravalent Plutonium from Nitric Acid Solutions by Oxygen-Containing Extractants—V. A. Khalkin, P. N. Palei, and A. A. Nemodruk	191	215
Effect of Structural Factors on the Thermodynamic Characteristics of the Extraction of Salts of Basic Dyes. III. Equilibrium in Extraction with a "Dissociating" Solvent—K. S. Krasnov	197	222
Elution of Thorium from Strongly Basic Anionites—E. I. Kazantsev and V. A. Kudusov	205	231

(continued)

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Complex Formation of Protactinium in Acid Nitrate Solutions—I. E. Starik and L. I. Il'menkova.	209	236
Infrared Spectra of Complex Compounds of Thorium, Zirconium, and Uranyl with 8-Oxine . . . and Tributyl Phosphate—V. I. Gaivoronskii, O. A. Osipov, and R. R. Shagidullin	216	244
Complex Formation of Thorium with Mandelic and α-Hydroxyisobutyric Acids —A. V. Lapitskii, I. Gélétseanu, and Ya. Mink.	220	249
Thermodynamic Characteristics of Atoms and Ions of Rare Earth and Actinide Elements —G. A. Krestov.	229	258
Determination of Traces of Chlorine, Arsenic, and Phosphorus in Some Organic Materials by the Activation Method—V. R. Negina, V. N. Zamyatnina, and A. A. Egorova	240	270
Mass Spectrometric Method of Determining Microamounts of Cesium—I. V. Burovina, V. P. Nesterov, and D. G. Fleishman.	243	272

The Russian date "Podpisano k pechati" of this issue was 4/1/63 . This is equivalent to "approved for printing." Publication did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Publisher

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of RADIOKHIMIYA

a publication of the Academy of Sciences of the USSR

© 1965 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N.Y.

Volume 5, Number 3 May-June, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
Cocrystallization of the Crystal Hydrate of Argon with the Crystal Hydrates of Silane and Methane – É. K. Gerling and T. V. Kol'tsova	249	277
Study of the Behavior of Sr^{90} in Melts by the Method of Isomorphous Cocrystallization in the Systems $PbCl_2-SrCl_2-LiCl$ and $PbCl_2-SrCl_2-NaCl$ – V. R. Klokman and N. S. Kolesnikov	255	284
Investigation of the Extraction of Thorium by Benzhydroxamic Acid – Abdel' Gavad Saed, A. V. Lapitskii, and N. P. Rudenko	261	290
Quantitative Determination of the Total Rare Earth Elements, Ruthenium, Palladium, and Platinum in Metallic Beryllium by an Activation Method – V. N. Zamyatina and L. A. Chikisheva	265	294
Use of Ion-Exchange Resins as Carriers of the Aqueous Phase in Partition Chromatography Separation of Zn, Cd, and Hg – L. N. Moskvin, B. K. Preobrazhenskii, and L. N. Rzhanitsyna	269	299
Adsorption of Polonium by Glass and Paper Filters in the Presence of Salts – I. E. Starik, B. S. Kuznetsov, and N. I. Ampelogova	274	304
Infrared Absorption Spectra of Uranyl Nitrate and Its Complexes with Neutral Addends – V. M. Vdovenko, D. N. Suglobov, and V. A. Krasil'nikov	281	311
Supplementary Data on the Solubility of the Oxalate of Quadrivalent Uranium – A. A. Grinberg and G. I. Petrzhak	289	319
Investigation of the Complex Formation of Protactinium with Mono-, Di-, and Polycarboxylic Acids by the Ion-Exchange Method. II. Complex Formation of Protactinium with α-Hydroxyisobutyric and Amygdalic Acids – A. V. Lapitskii and I. Gélétseanu	298	330
Comparative Study of Reagents for the Photometric Determination of Plutonium – A. A. Nemodruk, P. N. Palei, and N. E. Kochetkova	303	335
Separation of Praseodymium and Neodymium by Electrolysis on a Mercury Cathode. V. P. Shvedov and P. G. Antonov	310	342
Determination of Certain Rare Earth Elements by Radiometric Titration with Cupferron – B. M. Mar'yanov and V. V. Serebrennikov	314	347
The Positive Ion of Astatine in Nitric Acid Solution – Wang Fu-chüng, Yu. V. Norseev, V. A. Khalkin, and Ch'ao T'ao-nan	318	351

(continued)

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Determination of MsTh I by the Method of Measuring the β Radiation of MsTh II in a Preparation of Radium Purified of Extraneous Radioelements – N. G. Syromyatnikov, F. A. Mukashev, and L. A. Kapatsinskaya	323	356
Application of the Emanation Method to the Investigation of Calcium Hydrosilicates – K. B. Zaborenko, R. Tétner, and L. L. Melikhov	328	360
Electromigration Method of Determining the Physicochemical Constants of Compounds Existing in a State of Extreme Dilution. I. Determination of the Path of Ions and Character of the Motion of the Electrolyte During Continuous Electrophoresis on a Porous Filler – V. P. Shvedov and K. V. Kotegov	337	369
Electromigration Method of Determining the Physicochemical Constants of Compounds Existing in a State of Extreme Dilution – II. Determination of a Number of Physicochemical Quantities of the Compounds of Tc and Re – V. P. Shvedov and K. V. Kotegov.	342	374
Role of High-Energy Reactions in the Processes of Stabilization of "Hot" Bromine-82 Atoms in Alkyl Bromides – An. N. Nesmeyanov and É. S. Filatov	346	378
BRIEF COMMUNICATIONS		
Influence of pH on the Sorption of Co^{60} by Peat – A. I. Verdnikov and V. F. Oreshko	356	390
Electron Microscopic Investigation of the Influence of the Radioactivity of Elementary Sulfur on the Structure of Its Surface – L. I. Zemlyanova, I. E. Zimakov, A. M. Lyapina, Vikt. I. Spitsyn, and N. P. Dobrosel'skaya	359	392
α Decay of the Isotopes Cm^{245} and Cm^{246} – I. M. Belov, B. S. Dzhelepov, R. B. Ivanov, A. S. Krivokhatskii, V. G. Nedovesov, and V. P. Chechev	362	394
Interaction of Recoil Tritium Atoms with Halogen Derivatives of Benzene – V. V. Pozdeev, An. N. Nesmeyanov, and B. G. Dzantiev	364	395
Accelerated Method of Isolating Radium Isotopes for Emanation Measurements – P. I. Chaikin and N. V. Golubev	367	397

The Russian date "Podpisano k pechati" of this issue was 4/26/64 . This is equivalent to "approved for printing." Publication did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Publisher

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of RADIOKHIMIYA

a publication of the Academy of Sciences of the USSR

© 1965 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 5, Number 4 July-August, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
Formation of Anomalous Mixed Crystals of CaF_2–CeF_3 and CaF_2–YF_3 in the Crystallization of Calcium Fluoride from the Melt—K. G. Myakishev and V. R. Klokman	371	401
Adsorption of Iodine Labeled with I^{131} on a Platinum Surface—G. Tot	379	411
Dissociation, Dimerization, and Distribution of Di(2-Ethylhexyl)Phosphoric Acid in the System Octane—0.1 M $NaClO_4$ Solution—$HClO_4$—V. S. Ul'yanov and R. A. Sviridova	386	419
Mixtures of Mono- and Di(2,4-Diethyloctyl-1) Methylphosphonates and their Extraction Properties—B. N. Laskorin, D. I. Skorovarov, E. A. Filippov, and A. I. Shilin	391	424
Extraction of Complex Acids by Oxygen-Containing Solvents. I. Extraction of Micro- and Macroamounts of Antimony (V) by Alcohols, Ethers, and Esters—G. M. Dakar, B. Z. Iofa, and An. N. Nesmeyanov	395	428
Vibration Spectra of Complexes of Zirconium with Organophosphorus Derivatives. I. Spectra of Extracts from Hydrochloric and Nitric Acid Solutions—G. P. Nikitina and M. F. Pushlenkov	402	436
Interaction in the System Tri-n-Butylphosphine Oxide—Hydrochloric Acid—G. P. Nikitina and M. F. Pushlenkov	410	445
Vibration Spectra of Complexes of Zirconium with Organophosphorus Derivatives. II. Complexes of Zirconium Tetrachloride—G. P. Nikitina and M. F. Pushlenkov	419	456
Study of Complex Formation of Europium with Oxalate Ion by the Ion Exchange Method —A. S. Kereichuk and V. I. Paramonova	427	464
Change in Chemical Potentials of Water in Systems of the Type $UO_2(NO_3)_2$–$M(NO_3)_n$–H_2O at 25°C—M. A. Yakimov, N. F. Nosova, and V. K. Filippov	435	474
Action of α-Radiation on Sulfuric Acid Solutions of Methylene Blue. Mechanism of α-Radiolysis—M. V. Vladimirova and Z. V. Ershova	441	479
Extraction of Thorium From Solutions in Nitric Acid by Dibutylphosphoric Acid —Z. A. Sheka and É. I. Sinyavskaya	446	485
Extraction of Complex Acids by Oxygen-Containing Solvents. II. Calculation of Equilibrium Constants of Antimony (V) Hydrolysis in Hydrochloric Acid Solutions and Investigation of the Mechanism of its Extraction by Di-n-Butyl Ether—B. Z. Iofa and G. M. Dakar	451	490

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Separation of Small Amounts of Thorium from Rare Earth Elements, Iron, and Aluminum on an Ion-Exchange Resin with an Absorbed Reagent—V. A. Nazarenko, E. A. Biryuk, and E. N. Poluéktova	457	497
Effect of Covalence of the Interaction of the Cation of a Salting out Agent with Water Molecules on the Salting out Efficiency—O. Ya. Samoilov, R. T. Golovatenko, and V. I. Yashkichev	460	499
BRIEF COMMUNICATIONS		
Rational Form of the Distribution Law in Extraction—V. I. Levin	465	505
Solubility of Hydrocarbons in Heavy Water—A. N. Guseva and E. I. Parnov	467	507
Extraction of Oxalic Acid by Trioctylamine—V. S. Smelov and A. V. Strakhova	470	509
Displacement of the Bands in the Absorption Spectra of U(IV) on Formation of Fluoride Complexes—V. M. Vdovenko, G. A. Romanov, and V. A. Shcherbakov	472	511
Reaction of Tritium Recoil Atoms in Mixtures of Cyclopentane and Cyclohexane —E. N. Avdonina and An. N. Nesmeyanov	475	514
Interaction of Hot Tritium Atoms with Aliphatic Alcohols in the Liquid Phase —An. N. Nesmeyanov, Chiang T'ai-wang, and É. S. Filatov	476	515
Effect of Recoil of Co^{58} After (γ,n)-Reaction in Complex Compounds of Cobalt. Co(III) Triglycinate and Vitamin B_{12}—An. N. Nesmeyanov and V. Mudrova-Yablonitska	478	516
Some Peculiarities of the Behavior of Carrier-Free Zirconium-95 in Solutions —L. N. Pankratova, L. G. Vlasov, and A. V. Lapitskii	481	519
Preparation of Carrier-Free UX_1 (Th^{234}) by Extraction—Yu. A. Afanas'ev and A. I. Ryabinin	483	520

The Russian date "Podpisano k pechati" of this issue was 8/14/1963 . This is equivalent to "approved for printing." Publication did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Publisher

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of **RADIOKHIMIYA**

a publication of the Academy of Sciences of the USSR

© 1965 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 5, Number 5 September-October, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
Study of the Influence of the Gas Medium on the Coprecipitation of Cerium and Yttrium with CaF_2, Crystallizing from a Melt of the Binary System CaF_2–NaF – K. G. Myakishev and V. R. Klokman	487	527
Characteristics of the Interfacial Equilibrium in the Extraction of Uranyl Nitrate with Organophosphorus Derivatives, Considering the Activity Coefficients of the Components in the Organic Phase. I. Determination of the Activity Coefficients in the System Diluent–TBP–$UO_2(NO_3)_2$–H_2O According to the Vapor Pressure – M. F. Pushlenkov and O. N. Shuvalov	496	536
Characteristics of the Interfacial Equilibrium in the Extraction of Uranyl Nitrate with Organophosphorus Derivatives, Considering the Activity Coefficients of the Components in the Organic Phase. II. Extraction of Uranyl Nitrate with a Mixture of Tributyl Phosphate with Diluents – M. F. Pushlenkov and O. N. Shuvalov	503	543
Characteristics of the Interfacial Equilibrium in the Extraction of Uranyl Nitrate with Organophosphorus Derivatives, Considering the Activity Coefficients of the Components in the Organic Phase. III. Extraction of Uranyl Nitrate with a Mixture of TBP, DBBP, BDBP, and TBPO with Diluents – M. F. Pushlenkov and O. N. Shuvalov	509	551
Reversal of the Order of the Salting-out Ability of Cations in Extraction Processes – V. P. Ionov and V. I. Tikhomirov	516	559
On the Behavior of Polonium in the Process of Its Extraction with Di-n-Butylphosphoric Acid – N. I. Ampelogova	520	562
Magnetic Moments of Uranium (IV) Ions in Aqueous Solutions – V. M. Vdovenko, G. A. Romanov, and V. A. Shcherbakov	532	574
Study of the Complex-Formation of Uranium (IV) with the Fluoride Ion by the Proton Resonance Method –V.M. Vdovenko, G. A. Romanov, and V. A. Shcherbakov	538	581
Investigation of the Solvation of UO_2Cl_2 by Molecules of Organophosphorus Compounds by Spectroscopic Methods – V. M. Vdovenko, A. A. Lipovskii, and S. A. Nikitina	542	585
Investigation of the Solid Phase in the System $UO_2(NO_3)_2$–K_2CO_3–H_2O_2–H_2O – A. M. Gurevich and L. P. Polozhenskaya	548	592

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	RUSS.
Influence of the Ionic Composition of Solutions of Fe(III) on the Solution of Uranium Dioxide — E. A. Kanevskii and A. P. Filippov	558	602
Use of Ion Exchange to Study the State of Matter in Solution. X. The Study of Europium and Terbium Complexes with Lactic Acid — V. I. Paramonova and L. V. Solntseva	563	608
Separation of Samarium from Neodymium and Praseodymium by Electrolysis on a Mercury Cathode — V. P. Shvedov and N. G. Antonov	570	616
BRIEF COMMUNICATIONS		
Study of the Extraction of Uranyl Nitrate by Solutions of Tri-n-Octylammonium Nitrate in o-Xylene at 25°C — V. M. Vdovenko, T. V. Kovaleva, and I. A. Ryazanov	573	619
Behavior of Radiocolloids of Cerium in Sorption Systems — V. M. Nikolaev, E. I. Krylov, V. F. Bagretsov, and Yu. V. Egorov	577	622
Behavior of Polonium in Its Extraction from Perchloric Acid Solutions — N. I. Ampelogova	581	626
Study of the Electrochemical Behavior of Antimony in Micro and Ultramicroquantities — V. A. Ishina, V. S. Ziv, A. F. Ivanchenko, and D. M. Ziv.	584	629
Enrichment of Radioactive Antimony Preparations on the Basis of Phthalocyanine Complexes — D. M. Ziv, I. S. Kirin, A. F. Ivanchenko, and V. A. Ishina	587	632
Behavior of Carbon-14 Recoil Atoms in Mixtures of Pyridine with Benzene and Cyclohexane — E. N. Avdonina, K. Mudra, and An. N. Nesmeyanov	589	633
Isolation of Radioactive Silver Isotopes without a Carrier from Fission Products of Heavy Nuclei — R. V. Sedletskii and V. A. Shibaev.	592	635
Isolation and Radiochemical Purification of the Fission Fragment Cd^{115} from Fission Products — I. I. Naumova	594	637
Periodic Production of Thorium X from Preparations of Radiothorium by the Method of Ion Exchange Chromatography — K. B. Zaborenko, I. O. Bogatyrev, and D. Nittsol'd	596	638
Diffusion of Cesium-137 into the Soil — V. M. Prokhorov and Ch'ai Tien-Ying	598	639
Use of the Method of Microautoradiography to Investigate the Distribution of Radium in Films of High-Molecular Substances — K. B. Zaborenko, D. Nittsol'd, and V. I. Korobkov.	601	642
Isotope Effects in the (n, 2n) Reaction of Antimony — V. D. Nefedov, I. M. Rozman, Yu. A. Ryukhin, and E. A. Makoveev	604	643

The Russian date "Podpisano k pechati" of this issue was 10/16/1963 . This is equivalent to "approved for printing." Publication did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Publisher

(RADIOKHIMIYA)
Editorial Board

I. P. Alimarin
A. I. Brodskii
E. K. Gerling
A. A. Grinberg
V. R. Klokman
L. V. Komlev
B. V. Kurchatov
A. N. Nesmeyanov
A. V. Nikolaev
B. P. Nikol'skii *(Acting Editor)*
S. Z. Roginskii
V. I. Spitsyn
I. E. Starik
V. M. Vdovenko *(Editor-in-Chief)*
A. P. Vinogradov

SOVIET RADIOCHEMISTRY

A translation of **RADIOKHIMIYA**

a publication of the Academy of Sciences of the USSR

© 1965 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 5, Number 6 November-December, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
Effect of the Nature of the Flux on the Formation of CaF_2-CeF_3 and CaF_2-YF_3 Anomalous Mixed Crystals – K. G. Myakishev and V. R. Klokman	609	649
Sorption of Strontium Ions on Molecular Sieve in the Sodium Form – G. V. Tsitsishvili and A. Yu. Krupennikova	615	656
Sorption of Gold on Cationites from Chloride Solutions and Its Isolation Carrier-Free – Wang Fu-Chün, Yu. V. Norseev, V. A. Khalkin, and Chao T'ao-Nan	620	661
Proton Resonance Study of Complex Formation of U(IV) with Halide, Sulfate, and Perchlorate Anions – V. M. Vdovenko, G. A. Romanov, and V. A. Shcherbakov	624	664
Infrared Spectra and Structure of Complex Compounds of Uranyl Nitrate with Cesium and Pyridinium Nitrates – A. A. Lipovskii and M. G. Kuzina	628	668
Investigation of the Complex Formation of Americium with Acid Organophosphorus Compounds. I – V. I. Zemlyanukhin, G. P. Savoskina, and M. F. Pushlenkov	634	674
State of Microquantities of Elements in Aqueous Solutions Cationic Complexes of Protactinium – I. E. Starik and L. I. Il'menkova	640	679
Solubility of Gypsum in Aqueous Solutions of Salting-Out Agents – K. T. Dudnikova and O. Ya. Samoilov	644	683
Solubility of Gypsum in Aqueous Solutions of the Chlorides of Lanthanum, Praseodymium, Neodymium, and Samarium at 25°C – Z. I. Grigorovich and O. Ya. Samoilov	647	686
Study of the Separation of Strontium from Predominant Amounts of Calcium by the Method of Continuous Electrophoresis – V. P. Shvedov, A. V. Stepanov, and N. I. Gorskii	651	690
Chromatographic Separation of Rare Earth Elements and Certain Actinides on Cation-Exchange Resins in the Presence of Radioactive Isotopes Coprecipitated with LaF_3 – I.Brandshtetr, T. S. Zvarova, M. Krzhivanek, and Ya. Maly	655	694
Study of the Reaction Products of Heavy Elements with Multiply Charged Ions I. Radiochemical Determination of Ac^{225} and Ac^{226}, Arising in the Irradiation of Uranium and Thorium by Nitrogen and Neon Ions – I. Brandshtetr, M. Krzhivanek, Ya. Maly, and Su Hung-kuei	660	699

Annual Subscription: $95 **Single Issue: $30** **Single Article: $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Study of the Reaction Products of Heavy Elements with Multiply Charged Ions. II. Yield of Certain Isotopes of Californium and Fermium in the Irradiation of Thorium and Uranium by the Ions O^{16}, O^{18} and Ne^{22} – I. Brandshtetr, V. V. Volkov, V. A. Ermakov, T. S. Zvarova, M. Krzhivanek, Ya. Maly, and Su Hung-kuei	667	706
Preparation of Layers of Oxides of Th, U, Pu, and the Rare Earth Elements by Electrodeposition from Organic Solutions – B. A. Gvozdev and Yu. T. Chuburkov	673	712
Determination of the Yields of Certain Fragments in the Fission of Heavy Nuclei by Multiply Charged Ions. I. Fission of Th^{232} by O^{18} and Ne^{22} Ions – I. Brandshtetr, Wang T'ung-seng, V. A. Ermakov, I. Zvara, T. S. Zvarova, V. Knoblokh, M. Krzhivanek, Ya. Maly, and Su Hung-kuei	676	715
Further Investigation of the Products of the Spallation of Iron by 660-MeV Protons – A. K. Lavrukhina, L. D. Revina, V. V. Malyshev, L. M. Satarova, Su Hung-kuei, I. S. Kalicheva, and L. D. Firsova	682	721
Separation of Lead and Thallium from the Products of the Photodisintegration of Bismuth – Amar Nat and A. K. Lavrukhina	692	732
BRIEF COMMUNICATIONS		
Extraction of Uranyl Nitrate with Trioctylamine from Neutral Solutions – V. M. Vdovenko, I. G. Suglobova, I. N. Ladygin, and D. N. Suglobov	696	737
Heat of Solution of Uranyl Nitrate and Some of Its Complex Compounds – V. M. Vdovenko, I. G. Suglobova, D. N. Suglobov, and Yu. V. Datyuk	699	739
Optimum pH Region in the Solution of Uranium Dioxide in Sulfuric Acid with Participation of Various Oxidizing Agents and Fe(II) Ions – E. A. Kanevskii, A. P. Filippov, and M. I. Vel'matkin	702	741
Synthesis of Plutonyl Carbonates – V. D. Nikol'skii and A. A. Fedulova	705	744
Partition Chromatography on Teflon Separation of Europium from the Other Rare Earth Elements – L. N. Moskvin	708	747
Isolation of Bi, Hg, and Ag from Complex Mixtures of the Elements by the Method of Partition Chromatography – A. V. Kalyamin	711	749
Author Index, Volume 5	717	
Tables of Contents, Volume 5	719	

The Russian date "Podpisano k pechati" of this issue was 12/27/1963 . This is equivalent to "approved for printing." Publication did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Publisher

Soviet Journals Available in Cover-to-Cover Translation

ABBREVIATION	RUSSIAN TITLE		TITLE OF TRANSLATION	PUBLISHER	TRANSLATION Vol.	Issue	BEGAN Year
AÉ	Atomnaya énergiya		Soviet Journal of Atomic Energy	Consultants Bureau	1	1	1956
Akust. zh.	Akusticheskii zhurnal		Soviet Physics – Acoustics	American Institute of Physics	1	1	1955
	Astronomicheskii zhurnal		Soviet Astronomy – AJ	American Institute of Physics	34	1	1957
Astr(on). zh(urn).	Avtomaticheskaya svarka		Automatic Welding	Br. Welding Research Assn. (London)	12	1	1959
Avto(mat). svarka	Avtomatika i Telemekhanika		Automation and Remote Control	Instrument Society of America	27	1	1956
	Biofizika		Biophysics	National Institutes of Health**	6	1	1961
	Biokhimiya		Biochemistry	Consultants Bureau	21	1	1956
Byull. éksp(erim). biol. (i med.)	Byulleten' éksperimental'noi biologii i meditsiny		Bulletin of Experimental Biology and Medicine	Consultants Bureau	41	1	1959
		Life Sciences	Doklady Biological Sciences Sections (includes: Anatomy, biochemistry, biophysics, cytology, ecology, embryology, endocrinology, evolutionary morphology, genetics, histology, hydrobiology, microbiology, morphology, parasitology, physiology, zoology)	National Science Foundation*	112	1	1957
		Life Sciences	Doklady Botanical Sciences Sections (includes: Botany, phytopathology, plant anatomy, plant ecology, plant embryology, plant physiology, plant morphology)	National Science Foundation*	112	1	1957
		Chemical Sciences	Proceedings of the Academy of Sciences of the USSR, Section: Chemical Technology	Consultants Bureau	106	1	1956
		Chemical Sciences	Proceedings of the Academy of Sciences of the USSR, Section: Chemistry	Consultants Bureau	106	1	1956
		Chemical Sciences	Proceedings of the Academy of Sciences of the USSR, Section: Physical Chemistry	Consultants Bureau	112	1	1957
DAN (SSSR) Dokl(ady) AN SSSR	Doklady Akademii Nauk SSSR	Earth Sciences	Doklady Earth Sciences Sections (includes: Geochemistry, geology, geophysics, hydrogeology, lithology, mineralogy, oceanology, paleontology, permafrost, petrography)	American Geological Institute	124	1	1959
		Earth Sciences	Proceedings of the Academy of Sciences of the USSR, Section: Geochemistry	Consultants Bureau	106-123	1 6	1956-1958
		Earth Sciences	Proceedings of the Academy of Sciences of the USSR, Section: Geology	Consultants Bureau	112-123	1 6	1957-1958
		Mathematics	Soviet Mathematics – Doklady	American Mathematical Society	130	1	1960
		Physics	Soviet Physics – Doklady (includes: Aerodynamics, astronomy, crystallography, cybernetics and control theory, electrical engineering, energetics, fluid mechanics, heat engineering, hydraulics, mathematical physics, mechanics, physics, technical physics, theory of elasticity sections)	American Institute of Physics	106	1	1956
	Elektrosvyaz'		Telecommunications	Am. Inst. of Electrical Engineers		1	1957
Entom(ol). oboz(r).	Entomologicheskoe obozrenie		Entomological Review	National Science Foundation**	37	1	1958
FMM	Fizika metallov i metallovedenie		Physics of Metals and Metallography	Acta Metallurgica	5	1	1957
FTT, Fiz. tv(erd). tela	Fizika tverdogo tela		Soviet Physics – Solid State	American Institute of Physics	1	1	1959
Fiziol. Zh(urn). SSSR	Fiziologicheskii zhurnal imeni I.M. Sechenov		Sechenov Physiological Journal USSR	National Institutes of Health**	47	1	1961
Fiziol(ogiya) rast.	Fiziologiya rastenii		Plant Physiology	National Science Foundation*	4	1	1957
	Geodeziya i aerofotosyemka		Geodesy and Aerophotography	American Geophysical Union			1962
	Geokhimiya		Geochemistry	The Geochemical Society	1	1	1956
Geol. nefti i gaza	Geologiya nefti i gaza		Petroleum Geology	Petroleum Geology	2	1	1958
	Geomagnetizm i aeronomiya		Geomagnetism and Aeronomy	American Geophysical Union	1	1	1961
	Iskusstvennye sputniki zemli		Artificial Earth Satellites	Consultants Bureau	1	1	1958
Izmerit. tekhn(ika)	Izmeritel'naya tekhnika		Measurement Techniques	Instrument Society of America	7	1	1958

The translation of this journal is published in sections

Izv. AN SSSR O(td). Kh(im). N(auk)	Izvestiya Akademii Nauk SSSR: Otdelenie khimicheskikh nauk	Bulletin of the Academy of Sciences of the USSR: Division of Chemical Science	Consultants Bureau	16	1	1952
Izv. AN SSSR O(td). T(ekhn). N(auk): Metall). i top.	(see Met. i top)					
Izv. AN SSSR Ser. fiz(ich).	Izvestiya Akademii Nauk SSSR: Seriya fizicheskaya	Bulletin of the Academy of Sciences of the USSR: Physical Series	Columbia Technical Translations	18	3	1954
Izv. AN SSSR Ser. geofiz.	Izvestiya Akademii Nauk SSSR: Seriya geofizicheskaya	Bulletin of the Academy of Sciences of the USSR: Geophysics Series	American Geophysical Union	7	1	1957
Izv. AN SSSR Ser. geol.	Izvestiya Akademii Nauk SSSR: Seriya geologicheskaya	Bulletin of the Academy of Sciences of the USSR: Geologic Series	American Geological Institute	23	1	1958
Iz. Vyssh. Uch. Zav., Tekh. Teks. Prom.	Izvestiya Vysshikh Uchebnykh Zavedenii Tekhnologiya Tekstil'noi Promyshlennosti	Technology of the Textile Industry, USSR	The Textile Institute (Manchester)	4	1	1960
Kauch. i rez.	Kauchuk i rezina	Soviet Rubber Technology	Palmerton Publishing Company, Inc.	18	3	1959
	Kinetika i kataliz	Kinetics and Catalysis	Consultants Bureau	1	1	1960
	Koks i khimiya	Coke and Chemistry, USSR	Coal Tar Research Assn. (Leeds, England)		8	1959
Kolloidn. zh(urn).	Kolloidnyi zhurnal	Colloid Journal	Consultants Bureau	14	1	1952
	Kristallografiya	Soviet Physics – Crystallography	American Institute of Physics	2	1	1957
Metallov. i term.	Metallovedenie i termicheskaya obrabotka metallov	Metals Science and Heat Treatment of Metals	Acta Metallurgica	6	1	1958
	Metallurg	Metallurgist	Acta Metallurgica		1	1957
Met. i top.(gorn.)	Metallurgiya i toplivo (gornoye delo)	Russian Metallurgy and Fuels (mining)	Scientific Information Consultants, Ltd.		1	1960
Mikrobiol.	Mikrobiologiya	Microbiology	National Science Foundation*	26	1	1957
	Ogneupory	Refractories	Acta Metallurgica	25	1	1960
OS, Opt. i spektr.	Optika i spektroskopiya	Optics and Spectroscopy	American Institute of Physics	6	1	1959
Paleontol. Zh(urn)	Paleontologicheskii Zhurnal	Journal of Paleontology	American Geological Institute		1	1962
	Pochvovedenie	Soviet Soil Science	National Science Foundation**	53	1	1958
	Poroshkovaya Metallurgiya	Soviet Powder Metallury and Metal Ceramics	Consultants Bureau	2	1	1962
	Priborostroenie	Instrument Construction	Taylor and Francis, Ltd. (London)	4	1	1959
Pribory i tekhn. éks(perimenta)	Pribory i tekhnika éksperimenta	Instruments and Experimental Techniques	Instrument Society of America	3	1	1958
Prikl. matem. i mekh(an).	Prikladnaya matematika i mekhanika	Applied Mathematics and Mechanics	Am. Society of Mechanical Engineers	22	1	1958
PTE	(see Pribory i tekhn. éks.)					
	Problemy Severa	Problems of the North	National Research Council of Canada		1	1958
	Radiokhimiya	Radiochemistry	Consultants Bureau	4	1	1962
Radiotekh.	Radioteknika	Radio Engineering	Am. Institute of Electrical Engineers	16	1	1961
Radiotekhn. i élektron(ika)	Radiotekhnika i électronika	Radio Engineering and Electronic Physics	Am. Institute of Electrical Engineers	6	1	1961
	Stal'	Stal (in English)	Iron and Steel Institute	19	1	1959
	Stanki i instrument	Machines and Tooling	Production Engineering Research Assoc.	30	1	1959
Stek. i keram.	Steklo i keramika	Glass and Ceramics	Consultants Bureau	13	1	1956
Svaroch. proiz-vo	Svarochnoe proizvodstvo	Welding Production	Br. Welding Research Assn. (London)	5	4	1959
Teor. veroyat. i prim.	Teoriya veroyatnostei i ee primenenie	Theory of Probability and Its Application	Soc. for Industrial and Applied Math.	1	1	1956
Tsvet. metally	Tsvetnye metally	The Soviet Journal of Nonferrous Metals	Primary Sources	33	1	1960
UFN	Uspekhi fizicheskikh nauk	Soviet Physics – Uspekhi (partial translation)	American Institute of Physics	66	1	1958
UKh, Usp. khimi	Uspekhi khimii	Russian Chemical Reviews	Chemical Society (London)	29	1	1960
UMN	Uspekhi matematicheskaya nauk	Russian Mathematical Surveys	Cleaver-Hume Press, Ltd. (London)	15	1	1960
Vest. mashinostroeniya	Vestnik mashinostroeniya	Russian Engineering Journal	Production Engineering Research Assoc.	39	4	1959
Vop. onk(ol).	Voprosy onkologii	Problems of Oncology	National Institutes of Health**	7	1	1961
Zav(odsk). lab(oratoriya)	Zavodskaya laboratoriya	Industrial Laboratory	Instrument Society of America	24	1	1958
ZhAKh, Zh. anal(it). Khim(ii)	Zhurnal analiticheskoi khimii	Journal of Analytical Chemistry	Consultants Bureau	7	1	1952
ZhETF Zh. éksperim. i teor. fiz.	Zhurnal eksperimental'noi i teoreticheskoi fiziki	Soviet Physics – JETP	American Institute of Physics	28	1	1955
ZhFKh Zh. fiz. khimii	Zhurnal fizicheskoi khimii	Russian Journal of Physical Chemistry	Chemical Society (London)	33	7	1959
ZhNKh Zh. neorg(an). khim.	Zhurnal neorganicheskoi khimii	Journal of Inorganic Chemistry	Chemical Society (London)	4	1	1959
ZhOKh Zh. obshch. khim.	Zhurnal obshchei khimii	Journal of General Chemistry USSR	Consultants Bureau	19	1	1949
ZhPKh Zh. prikl. khim.	Zhurnal prikladnoi khimii	Journal of Applied Chemistry USSR	Consultants Bureau	23	1	1950
ZhSKh Zh. strukt(urnoi) khim.	Zhurnal strukturnoi khimii	Journal of Structural Chemistry	Consultants Bureau	1	1	1960
ZhTF Zh. tekhn. fiz.	Zhurnal tekhnicheskoi fiziki	Soviet Physics – Technical Physics	American Institute of Physics	26	1	1956
	Zhurnal vychislitel'noi matematika i matematicheskoi fiziki	U.S.S.R. Computational Mathematics and Mathematical Physics	Pergamon Press, Inc.	1	1	1962
Zh. vyssh. nervn. deyat. (im. Pavlova)	Zhurnal vysshei nervnoi deyatel'nosti (im I. P. Pavlova)	Pavlov Journal of Higher Nervous Activity	National Institutes of Health**	11	1	1961

*Sponsoring organization. Translation published by Consultants Bureau.
**Sponsoring organization. Translation published by Scripta Technica.